

Wednesday, December 20, 2017

Attn: Mr. Keith Gammell Barnhardt Mfg. Co. 247 Main Rd P.O. Box 3 Colrain, MA 01340

Project ID: DECEMBER NPDES

Sample ID#s: BZ52383

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis/Shiller

Laboratory Director

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 20, 2017

FOR: Attn: Mr. Keith Gammell

Barnhardt Mfg. Co.

247 Main Rd P.O. Box 3

Colrain, MA 01340

Sample Information

Matrix: WASTE WATER
Location Code: BARNHARD

Rush Request: Standard

P.O.#: G9085

<u>Custody Information</u> <u>Date</u>

Collected by: KG 12/06/17

LB 12/06/17

Analyzed by: see "By" below

Laboratory Data

Received by:

SDG ID: GBZ52383

Time

7:00

16:26

Phoenix ID: BZ52383

Project ID: DECEMBER NPDES

Client ID: EFFLUENT

RL/ Parameter Result **PQL** Units Dilution Date/Time Reference Βy Copper 0.030 0.003 mg/L 1 12/08/17 ΕK E200.7 B.O.D./5 day < 4.0 4.0 mg/L 2 12/07/17 10:30 KDB/RM SM5210B-01,-11 2 C.O.D. 178 20 mg/L 12/11/17 MSF SM5220D-97,-11 2 Ammonia as Nitrogen 1.71 0.10 mg/L 12/18/17 WHM E350.1 0.022 0.010 1 GD E353.2 Nitrite-N mg/L 12/07/17 16:55 Nitrate-N 11.1 0.50 mg/L 25 12/07/17 16:57 GD E353.2 < 0.015 E420.4 **Phenolics** 0.015 mg/L 1 12/07/17 BS Nitrogen Tot Kjeldahl 10.5 0.20 2 12/18/17 WHM E351.1 mg/L 3.26 Phosphorus, as P 0.050 mg/L 5 12/19/17 EG SM4500PE-99,-11 **Total Suspended Solids** 8.0 5.0 mg/L 1 12/08/17 KΗ SM2540D-97,-11 12/07/17 **Total Metals Digestion** Completed AG

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

December 20, 2017

Reviewed and Released by: Deb Lawrie, Project Manager



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QA/QC Report

December 20, 2017

QA/QC Data

SDG I.D.: GBZ52383

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 412243 (mg/L), C	C Sam	ole No: E	3Z53011	(BZ5238	33)								
ICP Metals - Aqueous													
Copper	BRL	0.0025	1.19	1.06	11.6	98.6			99.4			75 - 125	20



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QA/QC Report

December 20, 2017

QA/QC Data

SDG I.D.: GBZ52383

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 412056 (mg/L),	QC Samp	ole No:	BZ52134	(BZ5238	33)									
Phenolics	BRL	0.015	< 0.015	< 0.015	NC	99.5			87.0			90 - 110	20	m
QA/QC Batch 413282 (mg/L),	QC Samp	ole No:	BZ52224	(BZ5238	33)									
Ammonia as Nitrogen	BRL	0.05	0.31	0.30	3.30	97.3			99.3			90 - 110	20	
Nitrogen Tot Kjeldahl	BRL	0.10	1.76	2.02	13.8	106			104			85 - 115	20	
QA/QC Batch 413570 (mg/L),	QC Samp	ole No:	BZ52243	(BZ5238	33)									
Phosphorus, as P Comment:	BRL	0.01	0.023	0.019	NC	106			97.2			85 - 115	20	
Additional: LCS acceptance ran	ge is 85-11	5% MS	acceptance	e range 7	75-125%	٠.								
QA/QC Batch 412250 (mg/L),	QC Samp	ole No:	BZ52379	(BZ5238	33)									
Nitrate-N	BRL	0.02	< 0.02	< 0.02	NC	92.1			97.8			90 - 110	20	
Nitrite-N	BRL	0.01	0.011	0.02	NC	104			94.2			90 - 110	20	
QA/QC Batch 412123 (mg/L),	QC Samp	ole No:	BZ52434	(BZ5238	33)									
B.O.D./5 day	BRL	2.0	<4.0	<4.0	NC	94.5			110			70 - 130	20	
B.O.D./5 day GGA BOD						87.1						84 - 115	20	
QA/QC Batch 412502 (mg/L),	QC Samp	ole No:	BZ52434	(BZ5238	33)									
C.O.D. Comment:	BRL	10	<10	<10	NC	99.5			97.7			85 - 115	20	
Additional: LCS acceptance ran	ge is 85-11	5% MS	acceptance	e range 7	75-125%									
QA/QC Batch 412331 (mg/L),	QC Samp	ole No:	BZ52434	(BZ5238	33)									
Total Suspended Solids	BRL	5.0	<5.0	<5.0	NC	99.0						85 - 115		

m = This parameter is outside laboratory MS/MSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

December 20, 2017

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Sample Criteria Exceedances Report

GBZ52383 - BARNHARD

State: MA

Criteria: None

State: MA

RL Analysis
SampNo Acode Phoenix Analyte Criteria Units

Result RL Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

^{***} No Data to Display ***



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Analysis Comments

December 20, 2017 SDG I.D.: GBZ52383

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

										Coolant: IP	Cooler: Yes No	
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Sampler's Signature	Client Sample - Information - Identification	Identifica	j	C1-9-E1	Analysis		N. S.			**************************************	nigo of Schill	
Matrix Code: DW=Drinking Water G RW=Raw Water SE={ OIL=Oil B=Bulk L=Li	Matrix Code: DW-Drinking Water GW-Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Soild W=Wipe OLL=Oil B=Bulk L=Liquid	face Wate	r ww=wast	e Water e	Yednest Yednest	(AEV)	STORY OF	1263		\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Tubo Tubes Se	Oigi
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There you					Standard Other	Standard Other SURCHARGE APPLIES	State w	State where samples were collected: MR	collected:	25	Other surcharge applies	S